

GOELDIANA

Zoologia

Número 13

**Notes on the Neotropical genus *Acanthocera* Macquart
(Diptera: Tabanidae) with description of four new species**

Augusto Loureiro Henriques &
José Albertino Rafael

M.G.
590.5
G1
ex.3

08 de junho de 1992



25 JAN 1993







SciELO



Notes on the Neotropical genus *Acanthocera* Macquart
(Diptera: Tabanidae) with description of four new species

Augusto Loureiro Henriques ¹
José Albertino Rafael ²

ABSTRACT - Four new species of subgenus *Acanthocera* of genus *Acanthocera* Macquart are described: *aureoscutellata*, *bicincta*, *fairchildi* and *gorayebi*. References, geographic distribution and diagnosis with descriptive figures are presented.

KEY WORDS: *Acanthocera*, Tabanidae, Diptera, Neotropics, Taxonomy

RESUMO - Quatro espécies novas do gênero *Acanthocera* Macquart são descritas: *aureoscutellata*, *bicincta*, *fairchildi* e *gorayebi*. Referências, distribuição geográfica e diagnoses com figuras são apresentadas.

PALAVRAS-CHAVE: *Acanthocera*, Tabanidae, Diptera, Neotrópico, Taxonomia

¹ Bolsista do Conselho Nacional de Desenvolvimento Científico e Tecnológico-CNPq. Museu Paraense Emílio Goeldi, Departamento de Zoologia, Caixa Postal 399, 66040, Belém, PA.

² Instituto Nacional de Pesquisas da Amazônia, Departamento de Entomologia, Caixa Postal 478, 69011, Manaus, AM.

INTRODUCTION

The genus *Acanthocera* was proposed by Macquart in 1834 for *Tabanus longicornis* Fabrieius, 1775. Fairchild (1939) discussed the correect classification of the specimens studied by Macquart. Loew (1860), Schiner (1866) and Ricardo (1904) recognized the genus distinguishing it from *Dichelacera* by the relatively longer size of the antenna, especially the scape. Lutz (1915) redefined the genus. Enderlein (1922, 1925), in his revision of the family divided the genus into four, which were placed in two tribes of the subfamily Diaehlorinae based on the presenece or absenece of an antennal spine on the first flagellomere, as follows: *Spheciogaster* Enderlein and *Acanthocera* Macquart in Acanthocerini, *Mimodrynerus* Enderlein and *Lutziella* Enderlein in Diachlorini. Kröber (1928, 1934) kept this elassification except for *Mimodrynerus*, which was synonymized under *Spheciogaster*. Fairehild (1939) did not consider Enderlein's charaeters sufficient to establish the genera and he redefined the genus *Acanthocera*, plaing *Spheciogaster* and *Lutziella* under his synonymy. Later (Fairehild, 1969), he proposed this genus' division into three subgenera: *Acanthocera*, *Mimodrynerus* and *Polistimima* Fairehild; he also proposed the subgenus *Nothocanthocera* in the genus *Dichelacera* where ten species of *Acanthocera* were transferred. All four new species proposed here belong to subgenus *Acanthocera*.

The morphological terminology used here are based on McAlpine (1981).

The material examined for this work is deposited in: the British Museum (Natural History) (BMNH), London, England - Dr. J.E. Chainey; California Academy of Seienees (CAS), San Franciseo, California, USA - Dr. Norman Penny; Florida State Collecion of Arthropods (FSCA), Gainesville, Florida, USA - Dr. G.B. Fairehild; Instituto Nacional de Pesquisas da Amazônia (INPA), Manaus, Amazonas, Brazil - Dr. J.A. Rafael; Fundação Instituto Oswaldo Cruz (IOC), Rio de Janeiro, Brazil - Dr Sebastião J. de Oliveira; Museu Nacional, Universidade Federal do Rio de Janeiro (MNRJ), Rio de Janeiro, Brazil - Dr. Rita Tibana; Museu Paraense Emilio Goeldi (MPEG), Belém, Pará, Brazil - MSc. Therezinha Pimentel; Museo de La PLata (MLP), La Plata, Argentina - Dr. Sixto Coscaron; Museu de Zoologia da Universidade de São Paulo (MZUSP), São Paulo, Brazil - Dr. Nelson Papavero; Dr. R.C. Wilkerson collection (RCW), Smithsonian Institution, Washington D.C., USA; Museu de Zoologia, Universidade Federal do Paraná (UFPr), Curitiba, Brazil -Dr. Cláudio J.B. de Carvalho; National Museum of Natural History (USNM), Smithsonian Institution, Washington D.C., USA - Dr. R.V. Peterson.

Acanthocera aureoscutellata, sp.n.

(Figs. 1a-c, 5)

Acanthocera coarctata; Lutz, 1915: 59, Pl. 19, Fig. 3 (in part); Enderlein, 1925: 333; Fischer, 1939: 334 (♂); Fairchild, 1939: 24, Figs. 3,14,19; Barretto, 1947: 90, Fig. 2 (♂); Bouvier, 1952: 590 (misident.).

Spheciogaster coarctata; Kröber, 1928: 82, Fig. 3 (misident.).

Acanthocera intermedia; Fairchild, 1939 (in part).

Acanthocera (*Acanthocera*) *coarctata*; Coscaron, 1978: 30, Fig. 2 (misident.)

Small to medium sized 9,6 - 12,6mm. Species dark brown with golden yellow hairs and yellowish gray pollen on scutellum, propleuron, notopleuron and anepisternum. Apex of antennal tooth more than half the length of first flagellomere. Wing with clear brown infuscation on costal area and cup cell.

Female: length 11,2mm, wing 10,7mm. Frontal index 1.7. Eye bare. Frons (Fig. 1a) brown to subshiny black with gray pollen above and laterally of callus. Subcallus brown in ground color with gray pollen. Antenna (Fig. 1b): scape, pedicel and base of first flagellomere including the tooth yellowish brown, remainder brown to black. Face, parafacial and gena dark brown to shiny black with yellowish gray pollinose bands. Palpus (Fig. 1c) dark brown.

Thorax dark brown to black with golden hairs on sublateral line, postero-dorsally of notopleuron and anepisternum, dorsally of katatergite, posteriorly of postalar callus and scutellum. Yellowish gray pollen on sublateral line, propleuron, posteriorly on postalar callus and postero-dorsally on metepimeron. Wing (Fig. 5). Halter yellowish chestnut. Legs dark brown except midtibia, mid and hindtarsi yellowish chestnut, and 1/3 proximal of hindtibia whitish. Abdomen black covered with pale hairs except tergites 1 and 2 brown with velvet black subterminal band and white terminal band with yellow hairs. Sternite 2 with white terminal band.

Male: described by Fischer (1939) and Barretto (1947) as *A. coarctata* (Wied.). The descriptions and figures are appropriate to the new species proposed here.

Distribution: Brazil (Goiás, Mato Grosso, Minas Gerais, São Paulo, Rio de Janeiro, Paraná), Paraguay, Argentina (Corrientes).

Type material: Holotype female: BRAZIL, São Paulo, Ribeirão Preto, Rio Tamanduá, Oct. 1953, Barretto coll. (MZUSP); 74 female Paratype and 4 male Paratypes: BRAZIL, [Without locality], Fazenda 8 pontas, 1 Nov. 1947, Fellipe coll. (♀ MZUSP); Goiás, Anápolis, 11 Aug. 1936 (♀ MZUSP); same locality, 25. Aug. 1936, "comp. w. Type of *Acanthocera coarctata* (Wied.), Copenhagen, 1964, not in agreement, see notes, Fairchild det." (♀ FSCA); same locality, 10 Sep. 1936, terminalia in microtube with glycerin (♀ USNM); same locality, 1954,

"compared with Type of *Haematopota coarctata* Wied., Tuxen det., 1963" (♀ CAS); same locality, 12 Sep. 1936, *A. coarctata* (Wied.) Fairchild det., 1938 (♀ CAS); same locality, 17 Sep. 1936 (♀ CAS); Distrito Federal, Brasília, 11 Aug. 1974, Bráulio Dias coll. (♀ USNM); same locality, date and collector, terminalia in microtube with glycerin (♂ USNM); Mato Grosso, Maracaju, 19 Sep. 1937 (2♀♀ MZUSP); Três Lagoas, forest, 13-20 Sep. 1964, Exp. Depto. Zool. coll. (3♀♀ MZUSP); Rio Papagaio, Uariti, Oct. 1966, Lenko & Pereira coll. (♀ MZUSP); Minas Gerais, Serra do Cabral, 1-17 Sep. 1916 (2♀♀ FSCA); São Paulo, Serra da Cantareira, 1 Dec. 1906 (♀ FSCA); Serra da Bocaina, 17-25 Dec. 1915, *Ac. coarctata* (Wied.), "fide Lutz, Lutz fig. poor shows ant. too short" (♀ FSCA); Campos do Jordão, Dec. 1936, J. Lane coll. (♀ FSCA); São José dos Campos, 15 Oct. 1940 (♀ UFPr); M'Boy Guassu, Nov. 1940, Barretto coll. (♀ MZUSP); Campos da Serra, Dec. 1940, D'Amico coll. (♀ MZUSP); same locality, date and collector, *A. coarctata* (Wied.), Barretto det., 1945 (2♀♀ MZUSP); Cidade Jardim, Dec. 1940, J. Lane coll., *A. coarctata* (Wied.), Coscaron det., 1975 (♀ INPA); Campos do Jordão, 14 Dec. 1944, J. Lane coll. (2♀♀ MZUSP); Homem Morto, Dec. 1945, Barretto coll. (5♀♀ MZUSP, ♀ MLP, ♀ MPEG); Serra da Cantareira, Feb. 1946 (♀ MZUSP); Ribeirão Preto, Rio Tamanduá, Oct. 1953, Barretto coll. (8♀♀ MZUSP, ♀ MPEG); same locality and collector, 28 Oct. 1954 (♀ FSCA); Barueri, 1 Nov. 1954, Lenko coll. (♀ UFPr); Cajuru, Coqueiros, Jan. 1955, Barretto coll. (♀ MZUSP); Barueri, 2 Dec. 1955, K. Lenko coll. (♀ MZUSP); Campos do Jordão, Dec. 1955, J. Lane coll. (3♀♀ FSCA, ♀ MZUSP); same locality, date and collector, *A. coarctata* (Wied.), Coscaron det., 1975 (♀ MZUSP, ♀ MNRJ, ♀ IOC); Salesópolis, Boracéia, 17-19 Jan. 1957, E. Bukup, M. Carrera & F. Travassos coll. (2♀♀, MZUSP); São José do Barreiro, Serra Bocaina, 1-30 Jan to 1-10 Feb, Vulcan coll. (2♀♀ MZUSP); Salesópolis, 13. Dec. 1960 (♀ MZUSP); Campos do Jordão, 28 Sep. 1962, Papavero, Rabello, L. Silva & Zanettin coll., terminalia in microtube with glycerin (♂ MZUSP); Salesópolis, 4 Dec. 1963, Rabello coll., *A. coarctata* (Wied.), Fairchild det., 1966 (♀ MZUSP); same locality, date and collector, bait human, 15-18h, terminalia in microtube with glycerin (♀ MZUSP); same locality and collector, 15 Dec. 1965, 10-15h (♀ INPA); Barueri, 30 Oct. 1967, on light, K. Lenko coll. (♂ MZUSP); Campos do Jordão, 28 Sep. 1967, 10-12h, Rabello & Shannon coll., terminalia in microtube with glycerin (♂ MZUSP); Salesópolis, 24 Jan. 1968, on light, Trav. & F. Travassos coll. (♀ MZUSP); same locality, 17-26 Dec. 1969, J.M. & B.A. Campbell coll. (♀ FSCA); Paraná, Guarapuava, G. Kurowski coll. (♀ UFPr); Campos Jesuitas, U.M.K. coll. (3♀♀ UFPr); PARAGUAY, Caagazu, Dec. 1948, Shade coll. (♀ UFPr); San Pedro, Carumbé, 10 Jan.-10 Feb. 1973, R. Golbach coll., *A. coarctata* (Wied.), Coscaron det., 1974 (2♀♀ MLP); ARGENTINA, Misiones, Rio Uruguay, 9 Nov. 1951, Durct coll. (♀ UFPr); same locality and collector, 18 Nov. 1951 (♀ UFPr).

Variations: 3 females with golden hairs on scutellum just on posterior border; 17 females with few or no yellow hairs on notopleuron and golden hairs on scutellum just on the border; 2 females with few or no yellow hairs on notopleuron; 1 female with darker legs; 4 females with smaller antennal tooth; 1 female with paler infuscation pattern; 7 females and 1 male with darker color pattern including wing infuscation.

Discussion: this species, up until now, has been determined as *Acanthocera coarctata* (Wiedemann) (see list under species and type material). *A. aureoscutellata*, sp.n. differs from *A. coarctata* (Wiedemann) by apex of antennal tooth exceeding half of first flagellomere; slender maxillary palpus; yellow pollen on propleuron, sublateral line, scutellum and postero-dorsally on metepimeron; yellow hairs on notopleuron, anepisternum, scutellum and katatergite; abdominal segments 1 and 2 darker.

Etymology: the specific name refer to scutellum covered with golden hairs.

Acanthocera bicincta sp.n.

(Figs. 2a-c, 6)

Acanthocera (Acanthocera) extincta; Strickman, 1982: 401 (misident.)

Small sized. Species black with golden hairs on sublateral line, notopleuron, scutellum, propleuron, anepisternum and katatergite. Eyes pubescent. Antenna with dorsal tubercle on first flagellomere. Palpus somewhat inflated. Frons wide. Abdomen with band of yellow hairs on tergites 1 and 2.

Female: length 9,0mm, wing 8,5mm. Frontal index 1.0. Eye with short hairs. Frons (Fig. 2a) shiny black with pollen above and laterality to basal callus. Subcallus subshiny brown. Antenna (Fig. 2b): scape and pedicel yellowish chestnut, flagellum dark brown. Face, parafacial and gena shiny black with bands of yellowish gray pollen. Palpus (Fig. 2c) brown.

Thorax black with golden hairs on sublateral line, postero-dorsally on notopleuron and propleuron, dorsally on anepisternum, katatergite and posteriorly half of scutellum. Pollen whitish on sublateral line and dorsal portion of metepimerum. Wing (Fig. 6). Halter brown. Legs: coxae, trochanters and femora brown to black. Foretibia white on proximal half, remainder brown. Midtibia white with distal apex chestnut. Hindtibia chestnut to brown with proximal portion white. Tarsi chestnut to brown. Abdomen black covered with yellow hairs. Tergites 1-2 and sternite 2 with terminal band formed by whitish pollen and golden hairs.

Male: similar to the above description except the palpus is porrect, eyes contiguous and larger body hairs.

Distribution: Brazil (Rio Grande do Sul), Paraguay.

Type material: Holotype female: PARAGUAY, Itapúa, San Benito, Pastoreo, 2 Mar. 1980, A. Strickman coll., notes 1625, 03-02 # 13, *Acanthocera extincta* (Wied.), det. Fairchild, 1980, left wing in microlamina (FSCA); Paratype female: same locality, date and collector, 1605 # 8, terminalia absent (MPEG); Paratype male: BRAZIL, Rio Grande do Sul, 87Km of Porto Alegre, 10 May 1967, Berg & Abercombie coll. (INPA).

Discussion: this species is closely related to *Acanthocera extincta* (Wiedemann), but it differs by more robust palpus, yellowish scape and pedicel, darker wing infuscation and just two dorsal golden bands on abdomen.

Etiymology: the specific name refers to the two dorsal golden bands on base of abdomen.

Acanthocera fairchildi sp.n.
(Figs. 3a-c, 7)

Medium sized, 11,0 - 14,4mm. Species black with golden yellow hairs on sublateral line and scutellum. Wing tricolored. Midtibia black. Abdomen with brown to black hairs and two white band basally.

Female: length, 13,3mm; wing 12,0mm. Eye bare. Frontal index 1.6. Shiny black frons (Fig. 3a) with gray pollen above of frontal callus. Subcallus with gray pollen. Antenna (Fig. 3b): scape, pedicel and base of first flagellomere including antennal tooth yellowish chestnut, remainder brown to black. Face, parafacial and gena shiny black with bands of yellowish pollen. Palpus (Fig. 3c) black.

Thorax black with grayish pollinosity, more concentrated on sublateral line and postero-dorsally on metepimeron. Golden yellow hairs on sublateral line, postero-dorsally on notopleuron and anepisternum, and scutellum excepting anterior border. Wing (Fig. 7), costal, radial-1, apex of radial 2+3, apical little spot joined to radius 4 vein, apical anterior half of basal radial and apex of posterior cells brown. Anterior half of radial 2+3, radial-5 and posterior cubital cells yellowish, remainder of wing glass clear. Halter black with brown stem. Legs black except small proximal area of tibiae and tarsi white. Midtibia with white hairs. Abdomen black with pollinosity grayish brown excepting subterminal band on tergites 1, 2 and 2/3 anterior of tergite 3. Whitish pollinosity on posterior border of tergites 1 and 2 and sternites 2 and 3. Short golden hairs on posterior border of tergites 1 and 2.

Male: similar to the above description except the palpus is porrect, eyes contiguous and larger body hairs.

Distribution: Brazil (Pará, Amazonas, Rondônia), Peru, Bolivia.

Type material: Holotype female: BRAZIL, Rondônia, Ariquemes, 09°44'S, 61°52'W, Rio Ji-Paraná, 28 Oct. 1986, J.A. Rafael coll., flight trap (INPA); and 56 female Paratype and 1 Paratype male: BRAZIL, Pará, Benevides, Pa-408, Km 06, 19 Nov. 198?, 7: 30-8:00h, Gorayeb & Ramos coll. (♀ MPEG); same locality and collector, 30 Jan. 1980, (♀ MPEG); same locality and collector, 17 Dec. 1980 (♀ MPEG); Belém, 19-22 Nov. 1982, Gorayeb coll., arboreal flight trap,

23m (♀ MPEG); Serra Norte, igarapé Salobo, 18-21 Oct. 1984, 1,6m (♀ MPEG); same locality, N1, canga, 13:00h, 23 Oct. 1984, bait horse (♀ MPEG); same locality, 21-23 Oct. 1984, arboreal flight trap, 20m (♀ MPEG); same locality, igarapé Pojuca, 21-24 Oct. 1984 (♀ MPEG); same locality, 3-Alfa, 26-29 Oct. 1984 (♀ MPEG); same locality, N1, canga, 25-28 Oct. 1985, N. Bittencourt coll., 1,6m (2♀♀ MPEG); same locality, forest, J. Dias coll., (3♀♀ MPEG); same locality, canga, 28-31 Oct. 1985, 1,6m (♀ MPEG); same locality, 31 Oct.-3 Nov. 1985 (2♀♀ MPEG); Amazonas, Manaus, Reserva Ducke, 05 Oct. 1981, J.A. Rafael coll., arboreal flight trap, 25m (♀ INPA, ♀ MZUSP); same locality and collector, 08 Oct. 1981 (♀ INPA); same locality and collector, 13 Oct. 1981, flight trap (♀ INPA); Rondônia, Br 364, Km 28, 25 Oct. 1980, J. Arias coll., flight trap (2♀♀ INPA); Ouro Preto do Oeste, Linha 62, Km 16, Rio Paraíso, 08-11 Nov. 1984, F.F.Ramos coll., arboreal flight trap, 20m (4♀♀ MPEG); same locality and collector, 11-13 Nov. 1984 (4♀♀ MPEG); same locality, Rio Ji-Paraná, 20-23 Nov. 1984, 1,6m (♀ MPEG); same locality, Linha 212, lote 36, gleba 21-B, 21 Sep. 1986, F.F. Ramos, bait horse (2♀♀ MPEG); Ariquemes, rio Ji-Paraná, 09°44'S; 61°52'W, 28 Oct. 1986, J.A. Rafael, flight trap (3♀♀ INPA, ♀ MZUSP, ♀ FSCA); same locality, 7Km NW Costa Marques, 06 Nov. 1986, R. Wilkerson coll. (3♀♀ RCW, ♀ FSCA); same locality and collector, 09 Nov. 1986 (♀ RCW); same locality and collector, 16 Nov. 1986 (♀ RCW); PERU, Madre de Dios, Rio Tambopata, Res. 30Km (air) SW Pto. Maldonado, 290m, subtropical moist forest, 02-05 Nov. 1979, J.B. Heppner coll. (♀ USNM); same locality and collector, 11-15 Nov. 1979 (♀ RCW); same locality and collector, 16-20 Nov. 1979 (2♀♀ USNM); same locality, 15 Nov. 1982, R. Wilkerson coll., flight trap (♀ RCW); same locality and collector, 20-31 Oct. 1982 (♀ FSCA, ♀ RCW); same locality, 27 Oct. 1982, D.L. Pearson coll. (♂ RCW); same locality, 01-04 Nov. 1982, R. Wilkerson coll. (3♀♀ RCW); BOLIVIA, Depto. Villa Tunari, 240m, 02-06 Nov. 1983, R. Wilkerson coll. (♀ RCW).

Variations: 3 females from Rondônia and 1 female from Pará present the third and fourth abdominal segments brown.

Discussion: This species is closely related to dark specimens of *A. marginalis* Walker, but it differs in having a blackish midtibia, larger body and tricolored wing, while lacking a white band on tergite 3.

Etymology: the specific name is a tribute to Dr. Graham Bell Fairchild, researcher on Neotropical tabanids.



Acanthocera gorayebi n. sp.
(Figs. 4a-c, 8)

Medium sized, 9,7 - 12,6mm. Species dark brown with golden hairs on sublateral line, propleuron, anepisternum, katepisternum, katatergite and scutellum. Frontal callus narrower than frons.

Female: length 11,6mm, wing 10mm. Frontal index 1.8. Eye bare. Frons (Fig. 4a) brown to shiny black with yellowish gray pollinosity laterally and above frontal callus. Subcallus with gray pollen. Antenna (Fig. 4b): scape, pedicel and first half of first flagellomere including the tooth chestnut, remainder brown to black. Face, parafacial and gena brown to black with gray pollen bands. Palpus (Fig. 4c) brown with black hairs.

Thorax brown to black except paler postpronotal lobe. Yellowish gray pollinosity on sublateral line, propleuron, postero-dorsally on notopleuron and anepisternum, dorsally on katepisternum, katatergite and metepimeron. Yellow hairs on sublateral line, scutellum, postero-dorsally on notopleuron and anepisternum, dorsally on katepisternum and katatergite. Wing (Fig. 8). Halter brown. Legs dark brown except proximal half of fore and midtibia, proximal 1/3 of hindtibia and first tarsomeres of mid and hindtarsi white. Abdomen similar to *A. marginalis* Walker.

Male: similar to the above description except the palpus is porrect, eyes are contiguous and larger body hairs.

Distribution: French Guiana, Guyana, Brazil (Amapá, Pará, Amazonas, Rondônia, Mato Grosso) and PERU.

Type material: Holotype female: BRAZIL, Amazonas, Manaus, Campus Universitário, 14 Jun. 1982, J.A. Rafael coll.(INPA); 130 female Paratypes and 2 male Paratypes: FRENCH GUIANA, Acarquany, 01 Sep. 1980 (♀ FSCA); GUYANA, Oronoque & New River Heads, 1938, H. Beddington coll. (♀ BMNH); BRAZIL, Amapá, Rio Felício, 04 Aug. 1957, J. Lane coll. (♀ CAS); same locality and collector, Serra do Navio, 26 Sep. 1957 (♀ MZUSP) 27 Sep. 1957 (♀ MZUSP); same locality and collector, 01 Oct. 1957 (♀ CAS, ♀ MZUSP); same locality and collector, 20 Oct. 1957 (♀ MZUSP); same locality and collector, 24 Oct. 1957 (♀ FSCA); same locality and collector, Sep. 1959 (♀ MZUSP); Pará, Benevides, Pa-408, Km 06, campo, 16 Sep. 1980, I.S. Gorayeb, F.F, Ramos & E. Oliveira coll. 13:00-13:30h (♀ MPEG); same locality and collectors, 23 Jul. 1980 (♀ MPEG); same locality and collectors, 19 Mar. 1981 (♀ MPEG); Belém, Mocambo forest, 4-06 Aug. 1981 (♀ FSCA), Oriximiná, Rio Trombetas, Morro Branco, 07 Oct. 1982, J.A. Rafael coll. (6♀♀ INPA); same locality and collector, Igarapé Jaburu, 08 Oct. 1982 (8♀♀ INPA); same locality and collector, Cruz Alta, 13 Oct. 1982, flight trap (♀ INPA); Belém, 14-18 Oct. 1983, arboreal flight trap, 23m, I.S. Gorayeb coll. (♀ MPEG); Carajás, Serra Norte, 14 May 1984, 2m (♀ MPEG); same locality, 16-22 May 1984, arboreal flight trap, 15m (4♀♀ MPEG); same locality, 20 May 1984, T.

Pimentel coll. (♀ MPEG); Tucuruí, Rio Tocantins, 1-3 Jun. 1984, arboreal flight trap, 15m (♀ MPEG); Carajás, Serra Norte, 11-17 Aug. 1984, arboreal flight trap, 20m (2♀♀ MPEG); 17-20. Jun. 1985, 1,6m (♀ MPEG); Rio Trombetas, 06-12 Oct. 1985 (3♀♀ INPA); Ilha do Marajó, Breves, Rio Caruacá, 06-12 Aug. 1988, 2m, J. Dias coll.(3 ♀ MPEG); São João de Pirabas, Boa Esperança, 26-30 Oct. 1989, 1,6m, W. França coll. (♀ MPEG); Amazonas, N° 2868 (♀ INPA); Manaus, 23 Jun. 1970, T. Pimentel coll. (♀ MPEG); Rodovia Am 010, Km 30, 25 Aug. 1977, I.S. Gorayeb coll. (♀ MPEG); Manaus, 19 Aug. 1978, J.A. Rafael coll.(3♀ INPA); same locality and collector, 09 Sep. 1978 (♀ FSCA, ♀ INPA); same locality and collector, 16 Sep. 1978 (♀ INPA); Rio Purus, 20 Oct. 1979, J. Campbell coll. (♀ INPA); Manaus, Reserva Ducke, 24 Jul. 1981, arboreal flight trap, 15m, G.B. Fairchild coll. (♀ FSCA); same locality and collector, 29 Jul. 1981 (♀ FSCA); same locality and collector, 31 Jul. 1981 (♀ USNM); same locality and collector, 27 Aug. 1981 (3♀♀ INPA); same locality and collector, 28-29 Aug. 1981 (2 ♀♀ INPA); same collector, ± 60km N. Manaus, Reserva da Campina, 06 Aug. 1981 (♀ INPA); same collector, Reserva Ducke, 05 Oct. 1981 (2♀♀ INPA); same locality and collector, 23 Nov. 1981 (♀ INPA); same locality, date and collector, arboreal flight trap, 25m, right wing in microlamina (♀ INPA); same locality and collector, 08 Nov. 1981 (2♀♀ INPA); same locality, 11 Mar. 1982, J.A. Rafael coll. (♀ UFPr); same locality and collector, 27 Aug. 1982 (♀ INPA); Rio Madeira, Campo das Flores, Borba, 14-20 Sep. 1982, 7m, M.S. Brígida coll.(♀ MPEG); Manaus, Reserva Ducke, 23 Sep. 1986, Luis & Ulysses coll. (♀ INPA); same locality and collector, 22 Sep. 1988, arboreal flight trap, 15m (3♀♀ INPA); same locality, date and collector, arboreal flight trap, 21m (5♀♀ INPA); Marã, Rio Japurá, Maguari, 03-17 Oct. 1988, arboreal flight trap, 20m, J. Dias coll.(26 ♀♀ MPEG); same locality and collector, 21-25 Oct. 1988 (♀ MPEG); same locality and collector, 29.x-02 Nov. 1988 (5♀♀ MPEG); Rondônia, Rio Ji-Paraná, Fazenda Sinueiro, 24 Aug. 1986, W. França coll. (♀ MPEG); Ouro Preto do Oeste, 29 Aug-01 Sep. 1986, 1,6m, F.F. Ramos coll. (♀ MPEG); same locality and collector, arboreal flight trap, 15m (2♀♀ MPEG); 01-03 Sep. 1986, flight trap (♀ MPEG); same locality and collector, 05 Sep. 1986 (♀ MPEG); Mato Grosso, Teles Pires, Alto Tapajós, Jul. 1950, H. Sick coll. (♂ MZUSP); Rio Papagaio, Jul. or Aug. 1965, K. Lenko coll. (2♀♀ MZUSP); Rio Aripuanã, Humboldt, 59°77'W, 10°10'S, 12-16 Aug. 1974, flight Trap, D.G. Young coll.(3 ♀♀ FSCA); PERU, Pucalpa, 21 Mar. 1964, J. Schunke coll. (♀ BMNH); Madre de Dios, Avispas, 400m, 10-20 Sep. 1962, L. Pena coll. (♂ FSCA).

Variations: the male collected in Mato Grosso is paler. The r1 cell sometimes may be entirely infuscated.

Discussion: this species is closely related to *A. marginalis* Walker, but it differs by frontal callus narrower than frons, notopleuron and katatergite with yellowish gray pollen, yellow hairs dorsally on katapisternum and katatergite.

Etymology: the specific name is a tribute to Dr. Inocêncio de Sousa Gorayeb, researcher on Amazonian tabanids.

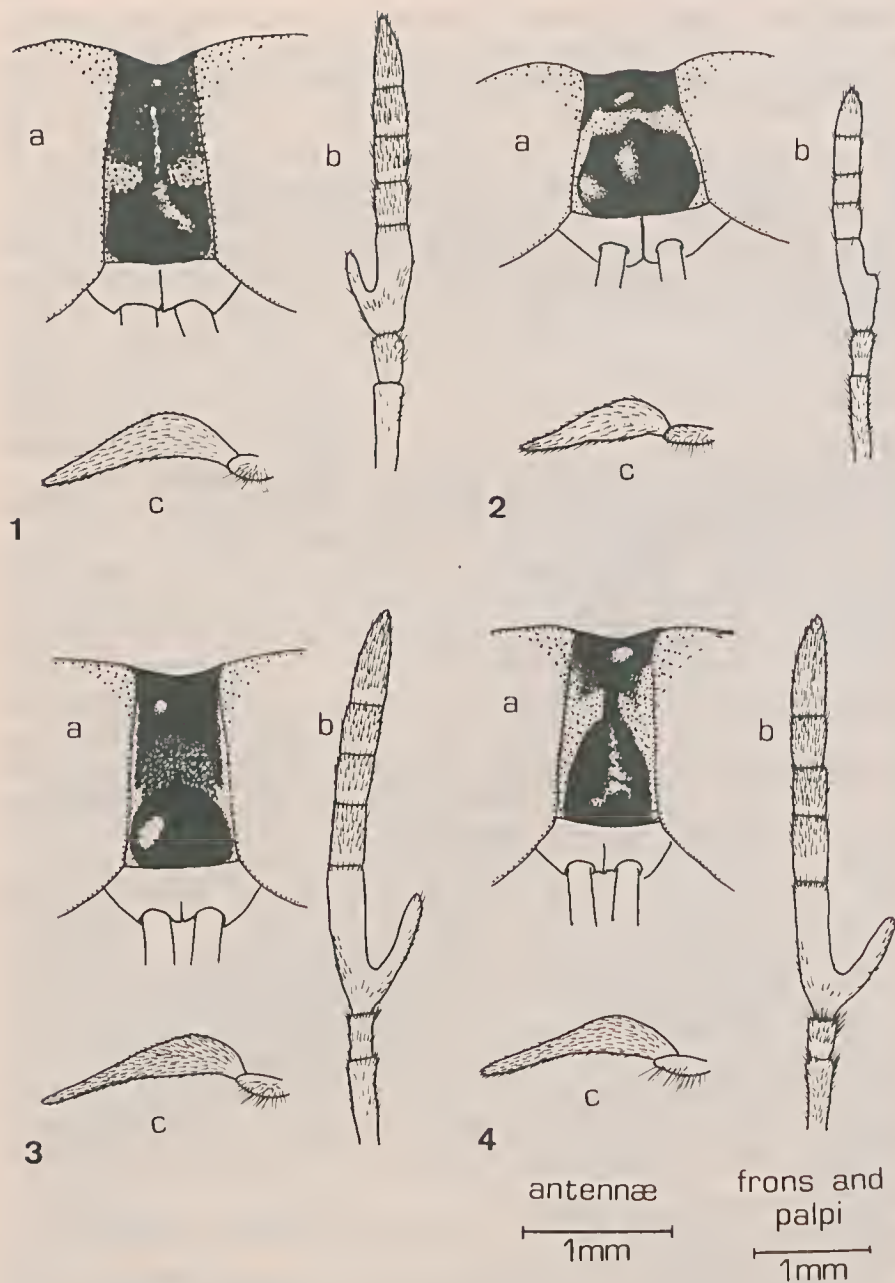
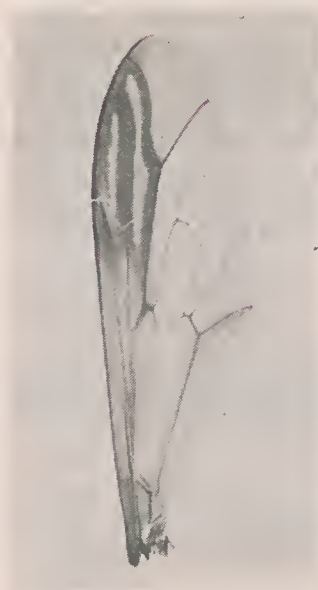


Figure 1 - *A. aureoscutellata* n.sp., Holotype. a) frons b) right antenna c) palpus.

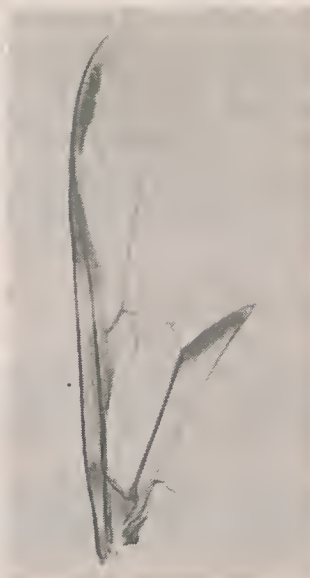
Figure 2 - *A. bicincta* n.sp., Holotype. a) frons b) left antenna c) palpus.

Figure 3 - *A. fairchildi* n.sp., Paratype female. a) frons b) left antenna c) palpus.

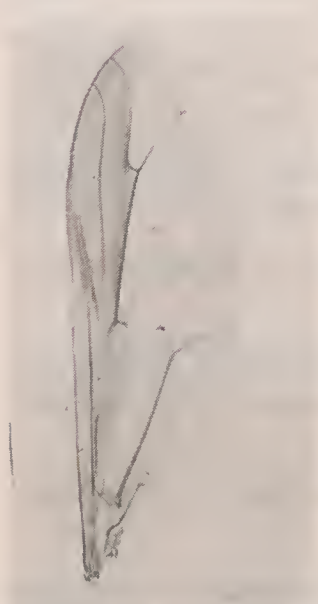
Figure 4 - *A. gorayebi* n.sp., Holotype. a) frons b) left antenna c) palpus.



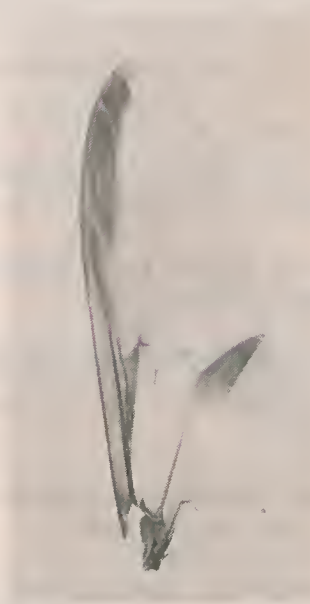
6



8



5



7

Figure 5 - *A. auroscutellata* n.sp., Paratype female: wing. Figure 6 - *A. bicincta* n.sp., Paratype female: wing.
Figure 7 - *A. fairchildi* n.sp., Paratype female: wing. Figure 8 - *A. gorayebi* n.sp., Paratype female: wing.

ACKNOWLEDGEMENTS

We thank the John D. and Catherine T. MacArthur Foundation, Chicago, U.S.A., for supporting the collections in Maraã, Amazonas, Breves, Marajó Island, and São João de Pirabas, Pará, all in Brazil, through a grant to the Museu Paraense Emílio Goeldi. Dr. G.B. Fairchild and Dr. I.S. Gorayeb made valuable suggestions on the manuscript. We thank all curators of the institutions listed for the loan of specimens. Dr. David C. Oren & Dr. William L. Overal (MPEG) helped edit the final version of this manuscript.

REFERENCES

- Barretto, M.P. 1947. Estudos sobre tabanidas brasileiros. IV. Sobre o gênero *Acanthocera* Macq., 1834, com as descrições de cinco novas espécies (Diptera: Tabanidae). *An. Fac. Med. Univ. S. Paulo*, 23: 89-115.
- Bouvier, G. 1952. Notes sur les tabanidés de la région de Campinas (Estado de S. Paulo) - Brésil. *Mem. Inst. Oswaldo Cruz*, 50: 580-596.
- Coscaron, S. 1978. Notas sobre Tabanidos argentinos. XVII. Los géneros *Phaeotabanus* Lutz y *Acanthocera* Macq. en la Argentina (Tabanidae: Diptera). *Rev. Soc. ent. arg.*, 37(1-4): 27-32.
- Enderlein, G. 1922. Ein neues Tabanidensystem. *Mitt. Zool. Mus. Berlin*, 10(2): 333-351.
- Enderlein, G. 1925. Studien an blutsaugenden Insekten. I. Grundlagen eines neuen Systems der Tabaniden. *Mitt. Zool. Mus. Berlin*, 11(2): 255-409. (1924).
- Fairchild, G.B. 1939. Notes on the genus *Acanthocera* Macq. (Diptera: Tabanidae). *Revta. Ent.*, 10(1): 14-27.
- Fairchild, G.B. 1969. Notes on Neotropical Tabanidae (Diptera). XII. Classification and distribution, with keys to genera and subgenera. *Arq. Zool. S. Paulo*, 17(4): 199-255.
- Fischer, R. 1939. O macho de *Acanthocera coarctata* (Wied.) (Diptera: Tabanidae). *Revta. Ent.*, 10(2): 334-337.
- Kröber, O. 1928. Die amerikanischen Arten der Tabaniden - Subfamilie Diachlorinae End. *Archiv. für Schiffs- und Therap. Exot. Krank.*, 32(2): 1-55.

- Kröber, O. 1934. Catálogo dos Tabanidae da América do Sul e Central, incluindo o México e as Antilhas. *Revta. Ent.*, 4(2): 222-276.
- Loew, H. 1860. Neue Beiträge zur Kenntniss der Dipteren Siebenter Beitrag. *Programm K. Realshule zu Meseritz*, 1860: 1-46 (also issued separately, with the same pagination, under the imprint, Berlin, 1860)
- Lutz, A. 1915. Tabanidas do Brasil e alguns estados vizinhos. Segunda Memória. *Mem. Inst. Oswaldo Cruz*, 7(1): 51-119.
- Macquart, J. 1834. *Histoire naturelle des Insectes. Diptères* 1: 578pp. in [Roret, N.E., ed.] (collection des suites à Buffon).
- McAlpine, J.F. 1981. Morphology and terminology, pp. 9-63. in: McAlpine, J.F. et al. eds. *Manual of Nearctic Diptera* 674pp. (Monograph n. 27), Res. Branch, Agriculture, Canada.
- Ricardo, G. 1904. Notes on the smaller genera of the Tabaninae of the family Tabanidae in the British Museum Collection. *Ann. & Mag. Nat. Hist.*, 14(7): 349-373.
- Schiner, J.R. 1866. Bericht über die von Weltumseglungsreise der K. Fregate Novara mitgebrachten Dipteren. *Verk. Zool. bot. Ges. Wien*. 16 (Abhandl.): 303-314.
- Strickman, D. 1982. Notes on Tabanidae (Diptera) from Paraguay. *J. Med. Ent.*, 19(4): 399-402.







SCT / CNPq
MUSEU PARAENSE EMÍLIO GOELDI

Campus de Pesquisa - Av. Perimetral. Guamá
Caixa Postal 399. Telex: (091) 1419. Telefones: Parque (091) 224-9233
Campus: (091) 228-2341 e 228-2162
66.040 Belém, Pará, Brasil

GOELDIANA ZOOLOGIA é uma publicação do Departamento de Zoologia do Museu Paraense Emílio Goeldi - CNPq.

- Nº 1. A reevaluation of *Serpophaga araguayae* Snethlage, 1928 (Aves: Tyrannidae). José Maria Cardoso da Silva
- Nº 2. Notes on *Cyranotermes* Araujo, with Description of a New Species (Isoptera, Termitidae, Nasutitermitinae). Reginaldo Constantino
- Nº 3. *Anhangatermes macarthurii*, a New Genus and Species of Soil-feeding Nasute Termite from Amapá, Brazil (Isoptera, Termitidae, Nasutitermitinae). Reginaldo Constantino
- Nº 4. New and reconfirmed bird records from the state of Maranhão, Brazil. David C. Oren
- Nº 5. Resultados de uma excursão ornitológica à ilha de Maracá, Roraima, Brasil. José Maria Cardoso da Silva & David C. Oren
- Nº 6. Priority Areas for New Avian Collections in Brazilian Amazonia. David C. Oren & Haroldo Guerreiro de Albuquerque
- Nº 7. Notes on *Neocapritermes* Holmgren, with description of two new species from the Amazon Basin (Isoptera, Termitidae, Termitinae). Reginaldo Constantino
- Nº 8. *Ereymatermes rotundiceps*, new genus and species of termite from the Amazon Basin (Isoptera, Termitidae, Nasutiterminae). Reginaldo Constantino
- Nº 9. Aves do Estado do Maranhão, Brasil. David C. Oren
- Nº 10. Resumo da Classificação e Bibliografia dos Mutílídeos da América do Sul (Hymenoptera: Mutillidae). William Leslie Overal
- Nº 11. New Data on the Distribution of Primates in the Region of the Confluence of the Jiparaná and Madeira Rivers in Amazonas and Rondônia, Brazil. Stephen F. Ferrari & Maria Aparecida Lopes
- Nº 12. A New Species of Marmoset, Genus *Callithrix* Erxleben, 1777 (Callitrichidae, Primates), from Western Brazilian Amazonia. Stephen F. Ferrari & Maria A. Lopes
- Nº 13. Notes on the Neotropical genus *Acanthocera* Macquart (Diptera: Tabanidae) with description of four new species. Augusto L. Henriques & José A. Rafael.

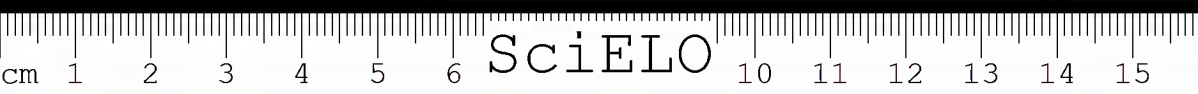
Este número foi publicado com o apoio de:

The John D. and Catherine T. MacArthur Foundation



&

World Wildlife Fund — US



SciELO